

Things to Know, Understand, and Do AE Chapter 1: Matter and Change

By the end of Chapter 1, you should

Know how to...
Define chemistry
Give the four defining points of matter
Define <i>Kinetic</i> and <i>Potential</i> Energy
Recognize the different states of matter (solid, liquid and gas) and give their characteristics
Explain the difference between chemical and physical changes and give examples of them.
List commonly used physical properties of matter
Identify several physical properties of common substances
Tell when a chemical reaction has taken place as well whether it was exothermic or endothermic
Appreciate the difference between <i>pure substances</i> and <i>mixtures</i> and the difference between <i>homogeneous</i> and <i>heterogeneous mixtures</i>
Classify the 3 types of mixtures (<i>suspensions, solutions, and colloids</i>)
Classify the 2 types of pure substances (<i>elements and compounds</i>)
Identify the name or symbol for the first given list of elements
Use the terms atom, element, molecule, and compound correctly
Define and identify the periodic table locations of groups, periods, metals, metalloids, nonmetals
Recognize similarities and differences in the properties of the common elements in a group
Understand...
The laws of conservation of matter and energy
The difference between weight and mass
A color change does not always mean a chemical reaction has taken place
How to tell the difference between a colloid, solution, and suspension
The law of definite composition